### §823.14 Soil replacement.

- (a) Soil reconstruction specifications established by the U.S. Soil Conservation Service shall be based upon the standards of the National Cooperative Soil Survey and shall include, as a minimum, physical and chemical characteristics of reconstructed soils and soil descriptions containing soil-horizon depths, soil densities, soil pH, and other specifications such that reconstructed soils will have the capability of achieving levels of yield equal to, or higher than, those of nomined prime farmland in the surrounding area.
- (b) The minimum depth of soil and substitute soil material to be reconstructed shall be 48 inches, or a lesser depth equal to the depth to a subsurface horizon in the natural soil that inhibits or prevents root penetration, or a greater depth if determined necessary to restore the original soil productive capacity. Soil horizons shall be considered as inhibiting or preventing root penetration if their physical or chemical properties or water-supplying capacities cause them to restrict or prevent penetration by roots of plants common to the vicinity of the permit area and if these properties or capacities have little or no beneficial effect on soil productive capacity.
- (c) The operator shall replace and regrade the soil horizons or other rootzone material with proper compaction and uniform depth.
- (d) The operator shall replace the B horizon, C horizon, or other suitable material specified in §823.12(c)(2) to the thickness needed to meet the requirements of paragraph (b) of this section. In those areas where the B or C horizons were not removed but may have been compacted or otherwise damaged during the mining operation, the operator shall engage in deep tilling or other appropriate means to restore premining capabilities.
- (e) The operator shall replace the topsoil or other suitable soil materials specified in §823.12(c)(1) as the final surface soil layer. This surface soil layer shall equal or exceed the thickness of the original surface soil layer, as determined by the soil survey.
- [48 FR 21463, May 12, 1983, as amended at 53 FR 40839, Oct. 18, 1988]

## §823.15 Revegetation and restoration of soil productivity.

- (a) Following prime farmland soil replacement, the soil surface shall be stabilized with a vegetative cover or other means that effectively controls soil loss by wind and water erosion.
- (b) Prime farmland soil productivity shall be restored in accordance with the following provisions:
- (1) Measurement of soil productivity shall be initiated within 10 years after completion of soil replacement.
- (2) Soil productivity shall be measured on a representative sample or on all of the mined and reclaimed prime farmland area using the reference crop determined under paragraph (b)(6) of this section. A statistically valid sampling technique at a 90-percent or greater statistical confidence level shall be used as approved by the regulatory authority in consultation with the U.S. Soil Conservation Service.
- (3) The measurement period for determining average annual crop production (yield) shall be a minimum of 3 crop years prior to release of the operator's performance bond.
- (4) The level of management applied during the measurement period shall be the same as the level of management used on nonmined prime farmland in the surrounding area.
- (5) Restoration of soil productivity shall be considered achieved when the average yield during the measurement period equals or exceeds the average yield of the reference crop established for the same period for nonmined soils of the same or similar texture or slope phase of the soil series in the surrounding area under equivalent management practices.
- (6) The reference crop on which restoration of soil productivity is proven shall be selected from the crops most commonly produced on the surrounding prime farmland. Where row crops are the dominant crops grown on prime farmland in the area, the row crop requiring the greatest rooting depth shall be chosen as one of the reference crops.
- (7) Reference crop yields for a given crop season are to be determined from—

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- (i) The current yield records of representative local farms in the surrounding area, with concurrence by the U.S. Soil Conservation Service; or
- (ii) The average county yields recognized by the U.S. Department of Agriculture, which have been adjusted by the U.S. Soil Conservation Service for local yield variation within the county that is associated with differences between nonmined prime farmland soil and all other soils that produce the reference crop.
- (8) Under either procedure in paragraph (b)(7) of this section, the average reference crop yield may be adjusted, with the concurrence of the U.S. Soil Conservation Service, for—
- (i) Disease, pest, and weather-induced seasonal variations; or
- (ii) Differences in specific management practices where the overall management practices of the crops being compared are equivalent.

# PART 824—SPECIAL PERMANENT PROGRAM PERFORMANCE STANDARDS—MOUNTAINTOP RE-MOVAL

Sec.

824.1 Scope.

824.2 Objectives.

824.11 Mountaintop removal: Performance standards.

AUTHORITY: Secs. 102, 201, 501, 503, 504, 506, 508, 510, 515, 517, 701 Pub. L. 95-87, 91 Stat. 448, 449, 467, 470, 471, 474, 478, 480, 486, 498, 516 (30 U.S.C. 1202, 1211, 1251, 1253, 1254, 1256, 1258, 1260, 1265, 1267, 1291).

### § 824.1 Scope.

This part sets forth special environmental protection performance, reclamation, and design standards for surface coal mining activities constituting mountaintop removal mining.

 $[44~{\rm FR}~15452,\,{\rm Mar.}~13,\,1979]$ 

### §824.2 Objectives.

The objectives of this part are to—
(a) Enhance coal recovery;

- (b) Reclaim the land to equal or higher postmining use; and
- (c) Protect and enhance environmental and other values protected under the Act and this chapter.

[44 FR 15452, Mar. 13, 1979]

## § 824.11 Mountaintop removal: Performance standards.

- (a) Under an approved regulatory program, surface coal mining activities may be conducted under a variance from the requirement of this subchapter for restoring affected areas to their approximate original contour, if—
- (1) The regulatory authority grants the variance under a permit, in accordance with 30 CFR 785.14;
- (2) The activities involve the mining of an entire coal seam running through the upper fraction of a mountain, ridge, or hill, by removing all of the overburden and creating a level plateau or gently rolling contour with no highwalls remaining;
- (3) An industrial, commercial, agricultural, residential, or public facility (including recreational facilities) use is proposed and approved for the affected land:
- (4) The alternative land use requirements of §816.133(a) through (c) of this chapter are met:
- (5) All applicable requirements of this subchapter and the regulatory program, other than the requirement to restore affected areas to their approximate original contour, are met;
- (6) An outcrop barrier of sufficient width, consisting of the toe of the lowest coal seam, and its associated overburden, are retained to prevent slides and erosion, except that the regulatory authority may permit an exemption to the retention of the coal barrier requirement if the following conditions are satisfied:
- (i) The proposed mine site was mined prior to May 3, 1978, and the toe of the lowest seam has been removed; or
- (ii) A coal barrier adjacent to a headof-hollow fill may be removed after the elevation of a head-of-hollow fill attains the elevation of the coal barrier if the head-of-hollow fill provides the stability otherwise ensured by the retention of a coal barrier;
- (7) The final graded slopes on the mined area are less than 1v:5h, so as to create a level plateau or gently rolling configuration, and the outslopes of the plateau do not exceed 1v:2h except where engineering data substantiates, and the regulatory authority finds, in writing, and includes in the permit